F 13

```
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP        SSSSSSSSSSSS  YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS              YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS              YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS              YYY         YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                 YYY   YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                 YYY   YYY
UUU         UUU  EEE                    TTT        PPP         PPP  SSS                 YYY   YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS           YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS           YYY
UUU         UUU  EEEEEEEEEEEE           TTT        PPPPPPPPPPPP        SSSSSSSSS           YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUU         UUU  EEE                    TTT        PPP                          SSS        YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS           YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS           YYY
UUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT        PPP              SSSSSSSSSSSS           YYY
```

```
                                        I  9
**FILE**ID**SATSSF14



  SSSSSSSS    AAAAAA    TTTTTTTTTT    SSSSSSSS    SSSSSSSS  FFFFFFFFFF      11      44    44
  SSSSSSSS    AAAAAA    TTTTTTTTTT    SSSSSSSS    SSSSSSSS  FFFFFFFFFF      11      44    44
SS          AA      AA      TT      SS          SS          FF            1111      44    44
SS          AA      AA      TT      SS          SS          FF            1111      44    44
SS          AA      AA      TT      SS          SS          FF              11      44    44
SS          AA      AA      TT      SS          SS          FF              11      44    44
  SSSSSS    AA      AA      TT        SSSSSS      SSSSSS    FFFFFFFF        11      4444444444
  SSSSSS    AA      AA      TT        SSSSSS      SSSSSS    FFFFFFFF        11      4444444444
        SS  AAAAAAAAAA      TT              SS          SS  FF              11            44
        SS  AAAAAAAAAA      TT              SS          SS  FF              11            44
        SS  AA      AA      TT              SS          SS  FF              11            44        ....
        SS  AA      AA      TT              SS          SS  FF              11            44        ....
SSSSSSSS    AA      AA      TT      SSSSSSSS    SSSSSSSS    FF            111111          44        ....
SSSSSSSS    AA      AA      TT      SSSSSSSS    SSSSSSSS    FF            111111          44        ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

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```

```
0000          .TITLE  SATSSF14 - SATS SYSTEM SERVICE TESTS  (FAILING S.C.)
0000          .IDENT  'V04-000'
0000
0000   ;
0000   ;****************************************************************************
0000   ;*                                                                          *
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0000   ;*                                                                          *
0000   ;*                                                                          *
0000   ;****************************************************************************
0000   ;
0000
0000   ;++
0000   ; FACILITY:     SATS SYSTEM SERVICE TESTS
0000   ;
0000   ; ABSTRACT:     THE SATSSF14 MODULE TESTS THE EXECUTION OF CERTAIN
0000   ; VMS SYSTEM SERVICES, INVOKED IN SUCH A WAY AS TO EXPECT FAILING
0000   ; STATUS CODES. THE SYSTEM SERVICES TESTED AND THE STATUS CODES
0000   ; EXPECTED ARE SUMMARIZED AS ARGUMENTS TO THE TESTSERV MACROS
0000   ; WHICH APPEAR NEAR THE END OF THIS LISTING. SUCCESSFUL STATUS
0000   ; CODES ARE TESTED IN OTHER MODULES.
0000   ;
0000   ;
0000   ; ENVIRONMENT:  USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000   ;               DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000   ;
0000   ; AUTHOR: THOMAS L. CAFARELLA,          CREATION DATE: MMM, 1978
0000   ;         PAUL D. FAY (DISPSERV & TESTSERV MACROS)
0000   ;
0000   ; MODIFIED BY:
0000   ;
0000   ;         , : VERSION
0000   ; 01      -
0000   ;--
```

```
                0000     52         .SBTTL  DECLARATIONS
                0000     53 ;
                0000     54 ; INCLUDE FILES:
                0000     55 ;
                0000     56         $PHDDEF                         ; PROCESS HEADER OFFSET SYMBOLS
                0000     57         $PCBDEF                         ; PROCESS CONTROL BLOCK OFFSET SYMBS
                0000     58         $STSDEF                         ; STATUS MESSAGE SYMBOLS
                0000     59         $PRVDEF                         ; SYMBOL DEFS FOR PRIVILEGES
                0000     60         $UETPDEF                        ; UETP MSG CODE DEFINITIONS
                0000     61         $SHR_MESSAGES UETP,116,<<TEXT,INFO>>
                0000     62                                         ; DEFINE UETP$_TEXT
                0000     63                                         ; GET RID OF MACRO DEFINITIONS
                0000     64         $PSLDEF                         ; ACCESS MODE SYMBOLS
                0000     65 ;
                0000     66 ; MACROS:
                0000     67 ;
                0000     68 ;
                0000     69 ; EQUATED SYMBOLS:
                0000     70 ;
00000000        0000     71 WARNING         = 0                     ; WARNING SEVERITY VALUE FOR MSGS
00000001        0000     72 SUCCESS         = 1                     ; SUCCESS SEVERITY VALUE FOR MSGS
00000002        0000     73 ERROR           = 2                     ; ERROR SEVERITY VALUE FOR MSGS
00000003        0000     74 INFO            = 3                     ; INFORMATIONAL SEV VALUE FOR MSGS
00000004        0000     75 SEVERE          = 4                     ; SEVERE (FATAL) SEV VALUE FOR MSGS
00000000        0000     76 TCG_NO          =  0                    ; INITIALIZE TEST CASE GROUP NUMBER
00000000        0000     77 GRP_TOTAL       =  0                    ; INITIALIZE TEST CASE GROUP TOTAL
00007FFF        0000     78 R0_THRU_SP      = ^M<R0,R1,R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,AP,FP,SP>
00000000        0000     79 INADR_LWS12     = 0                     ; INADR ARG FOR LKWSET (LOCATION 0)
00000001        0000     80 RETADR_LWS20    = 1                     ; RETADR ARG FOR LKWSET (LOCATION 1)
00000000        0000     81 INADR_UWS12     = 0                     ; INADR ARG FOR ULWSET (LOCATION 0)
00000001        0000     82 RETADR_UWS20    = 1                     ; RETADR ARG FOR ULWSET (LOCATION 1)
00000000        0000     83 INADR_LKP12     = 0                     ; INADR ARG FOR LCKPAG (LOCATION 0)
00000001        0000     84 RETADR_LKP20    = 1                     ; RETADR ARG FOR LCKPAG (LOCATION 1)
00000000        0000     85 INADR_ULP12     = 0                     ; INADR ARG FOR ULKPAG (LOCATION 0)
00000001        0000     86 RETADR_ULP20    = 1                     ; RETADR ARG FOR ULKPAG (LOCATION 1)
                0000     87 ;
                0000     88 ; OWN STORAGE:
                0000     89 ;
```

```
             00000000     91                .PSECT  RODATA,RD,NOWRT,NOEXE,LONG
             BFFC  0000     92 REG_COMP_MASK:  .WORD    ^M<R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,AP,FP> ! ^X8000 -
                   0002     93                                      ; REG COMPARE MASK (HIGH-ORDER ...
                   0002     94                                      ; ... BIT MUST BE ON
                   0002     95 ERR_MSG_FAOCTL: STRING  I,<!/!AC!1ZB!1ZB: REGISTER !2UW CONTENTS ALTERED>, -
                   0002     96                 <:  BEFORE SERVICE CALL: !8XL   AFTER SERVICE CALL: !8XL>
                   006E     97 TEST_MOD_NAME:  STRING  C,<SATSSF14>   ; TEST MODULE NAME
                   0077     98 TEST_MOD_BEG:   STRING  C,<begun>      ; DISPOSITION FIELD OF TEST MOD MSG
                   007D     99 TEST_MOD_SUCC:  STRING  C,<successful> ; DISPOSITION FIELD OF TEST MOD MSG
                   0088    100 TEST_MOD_FAIL:  STRING  C,<failed>     ; DISPOSITION FIELD OF TEST MOD MSG
                   008F    101 TEST_MOD_NAME_D: STRING I,<SATSSF14>   ; TEST MODULE NAME DESCRIPTOR
                   009F    102 TTNAME:         STRING  I,<TT>         ; TERMINAL LOGICAL NAME
00000000'00000000' 00A9    103 INADR:          .LONG   NOACCESS,NOACCESS ; PAGE ADDRESS OF NOACCESS PSECT
         00000000' 00B1    104 PROT:           .LONG   PRT$C_NA       ; PROTECTION CODE FOR NOACCESS PSECT
FFFFFFFF FFFFFFFF  00B5    105 ONES:           .LONG   -1,-1          ; A QUADWORD OF 1-BITS
                   00BD    106 INADR_LWS10:                           ; INADR ARGUMENT FOR LKWSET
                   00BD    107 INADR_UWS10:                           ; INADR ARGUMENT FOR ULWSET
         80000000' 00BD    108                 .ADDRESS ^X80000000    ; ......
         8F000000' 00C1    109                 .ADDRESS ^X8F000000    ; .......
                   00C5    110 INADR_LKP10:                           ; INADR ARGUMENT FOR LCKPAG
000000C9'000000C5' 00C5    111                 .ADDRESS .,.           ; ..... THIS PAGE
                   00CD    112 RETADR_LWS21:                          ; RETADR ARGUMENT FOR LKWSET
                   00CD    113 RETADR_UWS21:                          ; RETADR ARGUMENT FOR ULWSET
                   00CD    114 RETADR_LKP21:                          ; RETADR ARGUMENT FOR LCKPAG
                   00CD    115 RETADR_ULP21:                          ; RETADR ARGUMENT FOR ULKPAG
          000000D5 00CD    116                 .BLKL   2
                   00D5    117 ACMODE_LWS:                            ; ACMODE ARGUMENT FOR LKWSET
                   00D5    118 ACMODE_UWS:                            ; ACMODE ARGUMENT FOR ULWSET
          00000003 00D5    119                 .LONG   PSL$C_USER
```

```
        00000000   121              .PSECT  RWDATA,RD,WRT,NOEXE
00000004   0000   122 TPID:               .BLKL   1                  ; PROCESS ID FOR THIS PROCESS
00000008   0004   123 CURRENT_TC:         .BLKL   1                  ; PTR TO CURRENT TEST CASE
00000044   0008   124 REG_SAVE_AREA:      .BLKL   15                 ; SAVE AREA FOR ALL REGS (SANS PC)
007480D9   0044   125 MOD_MSG_CODE:       .LONG   UETP$_SATSMS       ; TEST MODULE MSG CODE FOR PUTMSG
0000004C   0048   126 CLOB_REG_NO:        .BLKL   1                  ; CLOBBERED REG NO (FOR FAO ERR MSG)
00000050   004C   127 REG_BEFORE_SS:      .BLKL   1                  ; REG CONTENTS BEFORE S.S.
           0050   128                                                ; ... (FOR FAO ERROR MSG)
00000054   0050   129 REG_AFTER_SS:       .BLKL   1                  ; REG CONTENTS AFTER S.S.
           0054   130                                                ; ... (FOR FAO ERROR MSG)
           0054   131 $$TSTN$$:           STRING  C,<  SF    >       ; ASCII PORTION OF TEST CASE NAME
0000006E'  005C   132 TMN_ADDR:           .ADDRESS TEST_MOD_NAME     ; ADDR OF TEST MOD NAME FOR FAO
00000077'  0060   133 TMD_ADDR:           .ADDRESS TEST_MOD_BEG      ; ADDR OF T.M. DISP FIELD FOR FAO
00000068   0064   134 TS_EP:              .BLKL   1                  ; ENTRY PNT FOR CURR TESTSERV MACRO
00000070   0068   135 RETADR:             .BLKL   2                  ; RETURN LONGWORDS FOR SETPRT
00000071   0070   136 PRVPRT:             .BLKB   1                  ; PROT RETURN BYTE FOR SETPRT
00000079   0071   137 PRIVMASK:           .BLKQ   1                  ; ADDR OF PRIVILEGE MASK (IN PHD)
0000007D   0079   138 CHM_CONT:           .BLKL   1                  ; CHANGE MODE CONTINUE ADDRESS
00000091   007D   139 REGS:               .BLKL   5                  ; AREA FOR COND INDEX REGS (R2-R6)
00000099   0091   140 INADR_LWS:          .BLKL   2                  ; INADR ARGUMENT FOR LKWSET SERVICE
000000A1   0099   141 INADR_LWS11:        .BLKL   2                  ; INADR ARGUMENT FOR LKWSET SERVICE
000000A9   00A1   142 RETADR_LWS:         .BLKL   2                  ; RETADR ARGUMENT FOR LKWSET SERVICE
000000B1   00A9   143 INADR_UWS:          .BLKL   2                  ; INADR ARGUMENT FOR ULWSET SERVICE
000000B9   00B1   144 INADR_UWS11:        .BLKL   2                  ; INADR ARGUMENT FOR ULWSET SERVICE
000000C1   00B9   145 RETADR_UWS:         .BLKL   2                  ; RETADR ARGUMENT FOR ULWSET SERVICE
000000C9   00C1   146 INADR_LKP:          .BLKL   2                  ; INADR ARGUMENT FOR LCKPAG SERVICE
000000D1   00C9   147 INADR_LKP11:        .BLKL   2                  ; INADR ARGUMENT FOR LCKPAG SERVICE
000000D9   00D1   148 RETADR_LKP:         .BLKL   2                  ; RETADR ARGUMENT FOR LCKPAG SERVICE
000000E1   00D9   149 INADR_ULP:          .BLKL   2                  ; INADR ARGUMENT FOR ULKPAG SERVICE
000000E9   00E1   150 INADR_ULP11:        .BLKL   2                  ; INADR ARGUMENT FOR ULKPAG SERVICE
000000F1   00E9   151 RETADR_ULP:         .BLKL   2                  ; RETADR ARGUMENT FOR ULKPAG SERVICE
```

```
         00000000     153             .PSECT  SATS_ACCVIO_1,RD,WRT,NOEXE,PAGE
00000200     0000     154 EMPTY:              .BLKB   512             ; RESERVE A PAGE OF SPACE
             0200     155 ;
             0200     156 ; +
             0200     157 ; ***************************************************************
             0200     158 ; *                                                             *
             0200     159 ; *       THE ORDER OF STATEMENTS IN THIS PSECT IS CRITICAL.    *
             0200     160 ; *       DO NOT RE-ARRANGE THE VARIABLES. CONSULT SATS          *
             0200     161 ; *       FUNCTIONAL SPECIFICATION FOR A DESCRIPTION OF THE USE  *
             0200     162 ; *       OF THE EMPTY PSECT (AND ITS COMPANION PSECT, NOACCESS). *
             0200     163 ; *                                                             *
             0200     164 ; ***************************************************************
             0200     165 ; -
             0200     166 ;
             0200     167 ; TYPE AAAAA_SSSX1 (TYPE AAAAA_SSSX2 IF NOT DESC) GO HERE:
000001FF     0200     168 INADR_ULP10     = . - 1                 ; INADR ARG FOR ULKPAG (LAST BYTE IN PAGE)
000001F9     0200     169 INADR_LWS14     = . - 7                 ; INADR ARGUMENT FOR LKWSET
000001F9     0200     170 RETADR_LWS22    = . - 7                 ; RETADR ARGUMENT FOR LKWSET
000001F9     0200     171 INADR_UWS14     = . - 7                 ; INADR ARGUMENT FOR ULWSET
000001F9     0200     172 RETADR_UWS22    = . - 7                 ; RETADR ARGUMENT FOR ULWSET
000001F9     0200     173 INADR_LKP14     = . - 7                 ; INADR ARGUMENT FOR LCKPAG
000001F9     0200     174 RETADR_LKP22    = . - 7                 ; RETADR ARGUMENT FOR LCKPAG
000001F9     0200     175 INADR_ULP14     = . - 7                 ; INADR ARGUMENT FOR ULKPAG
000001F9     0200     176 RETADR_ULP22    = . - 7                 ; RETADR ARGUMENT FOR ULKPAG
000001F3     0200     177                 . = . - 13              ; ALLOW ROOM FOR STRING DESCRIPTOR
             01F3     178 ; TYPE AAAAA_SSSX5 GO HERE:
00000006     01F3     179                 .LONG   6               ; STRING LENGTH (WILL CROSS PSECT BOUNDARY)
000001FB'    01F7     180                 .ADDRESS .+4            ; STRING ADDRESS
             01FB     181 ; TYPE AAAAA_SSSX3 GO HERE:
000001FC     01FB     182                 .BLKB   1               ; LOW-ORDER BYTE OF STRING LENGTH
             01FC     183 ; TYPE AAAAA_SSSX2 GO HERE:
00000200     01FC     184                 .BLKL   1               ; STRING LENGTH
             0200     185 ;
             0200     186 ;
             0200     187 ;
             0200     188 ;
         00000000     189             .PSECT  SATS_ACCVIO_2,RD,WRT,NOEXE,PAGE
00000200     0000     190 NOACCESS:       .BLKB   512             ; RESERVE A PAGE OF SPACE
00000000     0200     191                 . = . - 512             ; RETURN LOC CTR TO BEGINNING OF PSECT
00000000'    0000     192                 .ADDRESS EMPTY          ; ADDRESS OF ACCESSIBLE STRING
00000000'    0004     193                 .ADDRESS EMPTY/^X100    ; ADDRESS OF ACCESSIBLE STRING
             0008     194 ;+
             0008     195 ; *** NOTE -- DO NOT CHANGE LOCATION OR SEQUENCE OF ABOVE STATEMENTS!
             0008     196 ; ***         THIS PSECT (NOACCESS) MUST APPEAR IN MEMORY IMMEDIATELY
             0008     197 ; ***         FOLLOWING THE EMPTY PSECT. PSECT NAMES AND OPTIONS WILL BE
             0008     198 ; ***         CHOSEN TO FORCE THE DESIRED PSECT ORDERING.
             0008     199 ;-
             0008     200 ;
00000010     0008     201 INADR_LWS13:    .BLKL   2               ; INADR ARGUMENT FOR LKWSET
00000018     0010     202 INADR_UWS13:    .BLKL   2               ; INADR ARGUMENT FOR ULWSET
00000020     0018     203 INADR_LKP13:    .BLKL   2               ; INADR ARGUMENT FOR LCKPAG
00000028     0020     204 INADR_ULP13:    .BLKL   2               ; INADR ARGUMENT FOR ULKPAG
             0028     205 ;
             0028     206 ;
             0028     207 ;
         00000000     208             .PSECT  SATSSF14,RD,WRT,EXE,LONG
```

```
0000          .SBTTL  SATSSF14
0000   ;++
0000   ; FUNCTIONAL DESCRIPTION:
0000   ;
0000   ;               AFTER PERFORMING SOME INITIAL HOUSEKEEPING, SUCH AS
0000   ; PRINTING THE MODULE BEGIN MESSAGE AND ACQUIRING ALL PRIVILEGES,
0000   ; THE SATSSF14 ROUTINE EXECUTES THE TEST_SERV_EXEC MACRO TO RUN
0000   ; ALL TEST CASES. WHEN THE MACRO COMPLETES ITS EXECUTION, SATSSF14
0000   ; PRINTS A TEST MODULE SUCCESS OR FAIL MESSAGE AND EXITS TO THE
0000   ; OPERATING SYSTEM. TEST_SERV_EXEC CALLS THE TC_CONTROL/TESTSERV
0000   ; CO-ROUTINE PAIR ONCE PER TEST CASE GROUP TO EXECUTE ALL TEST
0000   ; CASES IN THAT GROUP. EACH TEST CASE GROUP IS DEFINED BY BOUNDING
0000   ; ITS TEST CASES WITH A TC_GROUP MACRO BEFORE THE FIRST TEST CASE
0000   ; AND A TCEND MACRO AFTER THE LAST ONE. THE TEST CASES THEMSELVES
0000   ; ARE DEFINED WITHIN THESE BOUNDS BY PRECEDING EACH WITH A
0000   ; NEXT_TEST_CASE MACRO. TC_CONTROL/TESTSERV EXECUTES THE CODE
0000   ; FOLLOWING EACH NEXT_TEST_CASE MACRO IMMEDIATELY BEFORE ISSUING
0000   ; THE SYSTEM SERVICE AS REQUESTED IN THE TESTSERV MACRO. TC_CONTROL/
0000   ; TESTSERV ALSO CHECKS THE RESULTS OF THE SERVICE WITH RESPECT
0000   ; TO ITS EXPECTED STATUS CODE AND PRINTS ANY REQUIRED FAILURE
0000   ; MESSAGES FOR THE TEST CASE. THE CODE APPEARING AFTER EACH
0000   ; NEXT_TEST_CASE MACRO IS MERELY TO SET UP CONDITIONS REQUIRED
0000   ; FOR THE SYSTEM SERVICE AND TO CLEAN UP ANY RESOURCES ACQUIRED
0000   ; BY THE PREVIOUS TEST CASE.
0000   ;
0000   ; CALLING SEQUENCE:
0000   ;
0000   ;       $ RUN SATSSF14  ...  (DCL COMMAND)
0000   ;
0000   ; INPUT PARAMETERS:
0000   ;
0000   ;       NONE
0000   ;
0000   ; IMPLICIT INPUTS:
0000   ;
0000   ;       NONE
0000   ;
0000   ; OUTPUT PARAMETERS:
0000   ;
0000   ;       NONE
0000   ;
0000   ; IMPLICIT OUTPUTS:
0000   ;
0000   ;       MESSAGES TO SYS$OUTPUT ARE THE ONLY OUTPUT FROM SATSSF14.
0000   ;       THEY ARE OF THE FORM:
0000   ;
0000   ;               %UETP-S-SATSMS, TEST MODULE SATSSF14 BEGUN ... (BEGIN MSG)
0000   ;               %UETP-S-SATSMS, TEST MODULE SATSSF14 SUCCESSFUL ... (END MSG)
0000   ;               %UETP-E-SATSMS, TEST MODULE SATSSF14 FAILED ... (END MSG)
0000   ;               %UETP-I-TEXT, ... (VARIABLE INFORMATION ABOUT A TEST MODULE FAILURE)
0000   ;
0000   ; COMPLETION CODES:
0000   ;
0000   ;       THE SATSSF14 ROUTINE TERMINATES WITH A $EXIT TO THE
0000   ;       OPERATING SYSTEM WITH A STATUS CODE DEFINED BY UETP$_SATSMS.
0000   ;
0000   ; SIDE EFFECTS:
```

```
                                 0000   267 ;
                                 0000   268 ;           NONE
                                 0000   269 ;
                                 0000   270 ;--
                                 0000   271
                                 0000   272
                                 0000   273
                                 0000   274 SATSSF14:
                           0FFC  0000   275         .WORD   ^M<R2,R3,R4,R5,R6,R7,R8,R9,R10,R11>
                                 0002   276                                         ; ENTRY MASK
                                 0002   277         $WAKE_S  TPID                   ; GET PID OF THIS PROCESS
                                 0011   278         $HIBER_S                        ; UNDO WAKE
                                 0018   279         $SETPRN_S TEST_MOD_NAME_D       ; SET PROCESS NAME
                  0ED8     30    0025   280         BSBW    MOD_MSG_PRINT           ; PRINT TEST MODULE BEGIN MSG
 00000060'EF  0000007D'EF  DE    0028   281         MOVAL   TEST_MOD_SUCC,TMD_ADDR  ; ASSUME END MSG WILL SHOW SUCCESS
00000044'EF   03   00   01  F0   0033   282         INSV    #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
                                 003C   283         MODE    TO,10$,KRNL,NOREGS      ; KERNEL MODE TO ACCESS PHD
         59   00000000'9F  D0    0059   284         MOVL    @#CTL$GL_PHD,R9         ; GET PROCESS HEADER ADDRESS
          00000071'EF  69  DE    0060   285         MOVAL   PHD$Q_PRIVMSK(R9),PRIVMASK ; GET PRIV MASK ADDRESS
                                 0067   286         MODE    FROM,10$                ; GET BACK TO USER MODE
                                 0068   287         PRIV    ADD,ALL                 ; GET ALL PRIVILEGES
                                 0088   288         DISPSERV                        ; SET UP DISPLAY INFO FOR TESTSERV
                                 021D   289         $SETPRT_S INADR=INADR, RETADR=RETADR, -
                                 021D   290                 PROT=PROT, PRVPRT=PRVPRT
                                 023E   291                                         ; SET NOACCESS PSECT ...
                                 023E   292                                         ; ... FOR NO USER ACCESS
                  0B5C     31    023E   293         BRW     EXECUTE                 ; GO EXECUTE ALL TEST CASES
                                 0241   294 ;
                                 0241   295         TC_GROUP        LWS,1,TS1
                                 0268   296 ;
                                 0268   297         NEXT_TEST_CASE  SFLWS10
```

```
0268     ;
0268     ;++
0268     ; ***************************************************************
0268     ; *
0268     ; *  TEST CASE NAME:             SFLWS10
0268     ; *
0268     ; *  SYSTEM SERVICE:             LKWSET
0268     ; *
0268     ; *  ARGUMENT UNDER TEST:        INADR_LWS10
0268     ; *
0268     ; *  INPUT CONDITIONS:
0268     ; *     ISSUE LKWSET WITH RANGE OF ADDRESSES IN
0268     ; *       SYSTEM SPACE.
0268     ; *
0268     ; *  EXPECTED RESULTS:
0268     ; *     1) SYSTEM STATUS CODE:  NOPRIV
0268     ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0268     ; *
0268     ; ***************************************************************
0268     ;--
0268     ;
0268     ;
0268             NEXT_TEST_CASE  SFLWS11
```

```
0274    ;
0274    ;++
0274    ; ************************************************************
0274    ; *
0274    ; *  TEST CASE NAME:                SFLWS11
0274    ; *
0274    ; *  SYSTEM SERVICE:                LKWSET
0274    ; *
0274    ; *  ARGUMENT UNDER TEST:           INADR_LWS11
0274    ; *
0274    ; *  INPUT CONDITIONS:
0274    ; *     LOCK INTO WORKING SET A PAGE ALREADY
0274    ; *       OWNED BY EXEC MODE.
0274    ; *
0274    ; *  EXPECTED RESULTS:
0274    ; *     1) SYSTEM STATUS CODE:  ACCVIO
0274    ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0274    ; *
0274    ; ************************************************************
0274    ;--
0274    ;
0274            MODE    TO,10$,EXEC,NOREGS      ; GET INTO EXEC MODE FOR EXPREG
0291            $EXPREG_S PAGCNT=#1, RETADR=INADR_LWS11
02A4                                            ; GET A 1-PAGE REGION OWNED BY EXEC MODE
02A4            MODE    FROM,10$                ; BACK TO USER MODE
02A5    ;
02A5            NEXT_TEST_CASE  SFLWS12
```

```
02B1   348 ;
02B1   349 ;++
02B1   350 ; *****************************************************
02B1   351 ; *
02B1   352 ; *  TEST CASE NAME:              SFLWS12
02B1   353 ; *
02B1   354 ; *  SYSTEM SERVICE:              LKWSET
02B1   355 ; *
02B1   356 ; *  ARGUMENT UNDER TEST:         INADR_LWS12
02B1   357 ; *
02B1   358 ; *  INPUT CONDITIONS:
02B1   359 ; *     INPUT ADDRESS FIELD AT LOCATION 0.
02B1   360 ; *
02B1   361 ; *  EXPECTED RESULTS:
02B1   362 ; *     1) SYSTEM STATUS CODE:  ACCVIO
02B1   363 ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
02B1   364 ; *
02B1   365 ; *****************************************************
02B1   366 ;--
02B1   367 ;
02B1   368         MODE    TO,20$,EXEC,NOREGS        ; INTO EXEC MODE FOR CNTREG
02CE   369         $CNTREG_S PAGCNT=#1               ; GIVE BACK PAGE ACQUIRED BY SFLWS11
02DD   370         MODE    FROM,20$                  ; BACK TO USER MODE
02DE   371 ;
02DE   372         NEXT_TEST_CASE  SFLWS13
```

```
02EA      ;
02EA      ;++
02EA      ; ******************************************************
02EA      ; *
02EA      ; *  TEST CASE NAME:             SFLWS13
02EA      ; *
02EA      ; *  SYSTEM SERVICE:             LKWSET
02EA      ; *
02EA      ; *  ARGUMENT UNDER TEST:        INADR_LWS13
02EA      ; *
02EA      ; *  INPUT CONDITIONS:
02EA      ; *     INPUT ADDRESS FIELD IN NON-ACCESSIBLE PSECT.
02EA      ; *
02EA      ; *  EXPECTED RESULTS:
02EA      ; *     1) SYSTEM STATUS CODE:  ACCVIO
02EA      ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
02EA      ; *
02EA      ; ******************************************************
02EA      ;--
02EA      ;
02EA      ;
02EA              NEXT_TEST_CASE  SFLWS14
```

```
02F6   ;
02F6   ;++
02F6   ; ******************************************************
02F6   ; *
02F6   ; *  TEST CASE NAME:             SFLWS14
02F6   ; *
02F6   ; *  SYSTEM SERVICE:             LKWSET
02F6   ; *
02F6   ; *  ARGUMENT UNDER TEST:        INADR_LWS14
02F6   ; *
02F6   ; *  INPUT CONDITIONS:
02F6   ; *     SECOND LONGWORD OF INPUT ADDRESS FIELD BEGINS IN
02F6   ; *       ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
02F6   ; *
02F6   ; *  EXPECTED RESULTS:
02F6   ; *     1) SYSTEM STATUS CODE:  ACCVIO
02F6   ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
02F6   ; *
02F6   ; ******************************************************
02F6   ;--
02F6   ;
02F6   ;
02F6           NEXT_TEST_CASE  SFLWS20
```

```
0302        ;
0302        ;++
0302        ; ****************************************************
0302        ; *
0302        ; *  TEST CASE NAME:           SFLWS20
0302        ; *
0302        ; *  SYSTEM SERVICE:           LKWSET
0302        ; *
0302        ; *  ARGUMENT UNDER TEST:      RETADR_LWS20
0302        ; *
0302        ; *  INPUT CONDITIONS:
0302        ; *     RETURN ADDRESS FIELD AT LOCATION 1.
0302        ; *
0302        ; *  EXPECTED RESULTS:
0302        ; *     1) SYSTEM STATUS CODE:  ACCVIO
0302        ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0302        ; *
0302        ; ****************************************************
0302        ;--
0302        ;
0302        ;
0302                NEXT_TEST_CASE  SFLWS21
```

```
030E    ;
030E    ;++
030E    ; ***********************************************************
030E    ; *
030E    ; *  TEST CASE NAME:           SFLWS21
030E    ; *
030E    ; *  SYSTEM SERVICE:           LKWSET
030E    ; *
030E    ; *  ARGUMENT UNDER TEST:      RETADR_LWS21
030E    ; *
030E    ; *  INPUT CONDITIONS:
030E    ; *     RETURN ADDRESS FIELD IN READ-ONLY PSECT.
030E    ; *
030E    ; *  EXPECTED RESULTS:
030E    ; *     1) SYSTEM STATUS CODE:  ACCVIO
030E    ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
030E    ; *
030E    ; ***********************************************************
030E    ;--
030E    ;
030E    ;
030E            NEXT_TEST_CASE  SFLWS22
```

```
031A    ;
031A    ;++
031A    ; *********************************************************
031A    ; *
031A    ; *  TEST CASE NAME:            SFLWS22
031A    ; *
031A    ; *  SYSTEM SERVICE:            LKWSET
031A    ; *
031A    ; *  ARGUMENT UNDER TEST:       RETADR_LWS22
031A    ; *
031A    ; *  INPUT CONDITIONS:
031A    ; *     SECOND LONGWORD OF RETURN ADDRESS FIELD BEGINS IN
031A    ; *       ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
031A    ; *
031A    ; *  EXPECTED RESULTS:
031A    ; *     1) SYSTEM STATUS CODE:  ACCVIO
031A    ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
031A    ; *
031A    ; *********************************************************
031A    ;--
031A    ;
031A    ;
031A            TCEND
```

```
0318   485 ;
0318   486          TC_GROUP          UWS,1,TS2
0342   487 ;
0342   488          NEXT_TEST_CASE   SFUWS10
```

```
0342   489 ;
0342   490 ;++
0342   491 ; ***********************************************************
0342   492 ; *
0342   493 ; *  TEST CASE NAME:                SFUWS10
0342   494 ; *
0342   495 ; *  SYSTEM SERVICE:                ULWSET
0342   496 ; *
0342   497 ; *  ARGUMENT UNDER TEST:           INADR_UWS10
0342   498 ; *
0342   499 ; *  INPUT CONDITIONS:
0342   500 ; *     ISSUE ULWSET WITH RANGE OF ADDRESSES IN
0342   501 ; *       SYSTEM SPACE.
0342   502 ; *
0342   503 ; *  EXPECTED RESULTS:
0342   504 ; *     1) SYSTEM STATUS CODE:  NOPRIV
0342   505 ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0342   506 ; *
0342   507 ; ***********************************************************
0342   508 ;--
0342   509 ;
0342   510 ;
0342   511         NEXT_TEST_CASE  SFUWS11
```

```
034E   512 ;
034E   513 ;++
034E   514 ; ****************************************************************
034E   515 ; *
034E   516 ; *   TEST CASE NAME:              SFUWS11
034E   517 ; *
034E   518 ; *   SYSTEM SERVICE:              ULWSET
034E   519 ; *
034E   520 ; *   ARGUMENT UNDER TEST:         INADR_UWS11
034E   521 ; *
034E   522 ; *   INPUT CONDITIONS:
034E   523 ; *      UNLOCK A PAGE ALREADY OWNED BY EXEC MODE.
034E   524 ; *
034E   525 ; *   EXPECTED RESULTS:
034E   526 ; *      1) SYSTEM STATUS CODE:  ACCVIO
034E   527 ; *      2) REGISTERS R2 THROUGH FP UNCHANGED
034E   528 ; *
034E   529 ; ****************************************************************
034E   530 ;--
034E   531 ;
034E   532         MODE     TO,10$,EXEC,NOREGS      ; GET INTO EXEC MODE FOR EXPREG
036B   533         $EXPREG_S PAGCNT=#1, RETADR=INADR_UWS11
037E   534                                          ; GET A 1-PAGE REGION OWNED BY EXEC MODE
037E   535         MODE     FROM,10$                ; BACK TO USER MODE
037F   536 ;
037F   537         NEXT_TEST_CASE  SFUWS12
```

```
038B   ;
038B   ;++
038B   ; ****************************************************
038B   ; *
038B   ; *  TEST CASE NAME:           SFUWS12
038B   ; *
038B   ; *  SYSTEM SERVICE:           ULWSET
038B   ; *
038B   ; *  ARGUMENT UNDER TEST:      INADR_UWS12
038B   ; *
038B   ; *  INPUT CONDITIONS:
038B   ; *     INPUT ADDRESS FIELD AT LOCATION 0.
038B   ; *
038B   ; *  EXPECTED RESULTS:
038B   ; *     1) SYSTEM STATUS CODE:  ACCVIO
038B   ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
038B   ; *
038B   ; ****************************************************
038B   ;--
038B   ;
038B           MODE    TO,20$,EXEC,NOREGS       ; INTO EXEC MODE FOR CNTREG
03A8           $CNTREG_S PAGCNT=#1              ; GIVE BACK PAGE ACQUIRED BY SFUWS11
03B7           MODE    FROM,20$                 ; BACK TO USER MODE
03B8   ;
03B8           NEXT_TEST_CASE  SFUWS13
```

```
03C4  ;
03C4  ;++
03C4  ; *******************************************************
03C4  ; *
03C4  ; *  TEST CASE NAME:            SFUWS13
03C4  ; *
03C4  ; *  SYSTEM SERVICE:            ULWSET
03C4  ; *
03C4  ; *  ARGUMENT UNDER TEST:       INADR_UWS13
03C4  ; *
03C4  ; *  INPUT CONDITIONS:
03C4  ; *     INPUT ADDRESS FIELD IN NON-ACCESSIBLE PSECT.
03C4  ; *
03C4  ; *  EXPECTED RESULTS:
03C4  ; *     1) SYSTEM STATUS CODE:  ACCVIO
03C4  ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
03C4  ; *
03C4  ; *******************************************************
03C4  ;--
03C4  ;
03C4  ;
03C4          NEXT_TEST_CASE  SFUWS14
```

```
03D0    ;
03D0    ;++
03D0    ; *******************************************************
03D0    ; *
03D0    ; *  TEST CASE NAME:            SFUWS14
03D0    ; *
03D0    ; *  SYSTEM SERVICE:            ULWSET
03D0    ; *
03D0    ; *  ARGUMENT UNDER TEST:       INADR_UWS14
03D0    ; *
03D0    ; *  INPUT CONDITIONS:
03D0    ; *     SECOND LONGWORD OF INPUT ADDRESS FIELD BEGINS IN
03D0    ; *       ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
03D0    ; *
03D0    ; *  EXPECTED RESULTS:
03D0    ; *     1) SYSTEM STATUS CODE:  ACCVIO
03D0    ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
03D0    ; *
03D0    ; *******************************************************
03D0    ;--
03D0    ;
03D0    ;
03D0            NEXT_TEST_CASE  SFUWS20
```

```
03DC      ;
03DC      ;++
03DC      ; ***********************************************************
03DC      ; *
03DC      ; *   TEST CASE NAME:              SFUWS20
03DC      ; *
03DC      ; *   SYSTEM SERVICE:              ULWSET
03DC      ; *
03DC      ; *   ARGUMENT UNDER TEST:         RETADR_UWS20
03DC      ; *
03DC      ; *   INPUT CONDITIONS:
03DC      ; *      RETURN ADDRESS FIELD AT LOCATION 1.
03DC      ; *
03DC      ; *   EXPECTED RESULTS:
03DC      ; *      1) SYSTEM STATUS CODE:   ACCVIO
03DC      ; *      2) REGISTERS R2 THROUGH FP UNCHANGED
03DC      ; *
03DC      ; ***********************************************************
03DC      ;--
03DC      ;
03DC      ;
03DC               NEXT_TEST_CASE  SFUWS21
```

```
03E8      ;
03E8      ;++
03E8      ; ******************************************************
03E8      ; *
03E8      ; *  TEST CASE NAME:            SFUWS21
03E8      ; *
03E8      ; *  SYSTEM SERVICE:            ULWSET
03E8      ; *
03E8      ; *  ARGUMENT UNDER TEST:       RETADR_UWS21
03E8      ; *
03E8      ; *  INPUT CONDITIONS:
03E8      ; *     RETURN ADDRESS FIELD IN READ-ONLY PSECT.
03E8      ; *
03E8      ; *  EXPECTED RESULTS:
03E8      ; *     1) SYSTEM STATUS CODE:  ACCVIO
03E8      ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
03E8      ; *
03E8      ; ******************************************************
03E8      ;--
03E8      ;
03E8      ;
03E8              NEXT_TEST_CASE  SFUWS22
```

```
                 03F4   652 ;
                 03F4   653 ;++
                 03F4   654 ; ************************************************************
                 03F4   655 ; *
                 03F4   656 ; *  TEST CASE NAME:            SFUWS22
                 03F4   657 ; *
                 03F4   658 ; *  SYSTEM SERVICE:            ULWSET
```

```
03F4        ; *
03F4        ; *  ARGUMENT UNDER TEST:        RETADR_UWS22
03F4        ; *
03F4        ; *  INPUT CONDITIONS:
03F4        ; *     SECOND LONGWORD OF RETURN ADDRESS FIELD BEGINS IN
03F4        ; *       ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
03F4        ; *
03F4        ; *  EXPECTED RESULTS:
03F4        ; *     1) SYSTEM STATUS CODE:  ACCVIO
03F4        ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
03F4        ; *
03F4        ; ******************************************************************
03F4        ;--
03F4        ;
03F4        ;
03F4                TCEND
```

```
                                   03F5    676 ;
                                   03F5    677         TC_GROUP        LKP,1,TS3
                                   041C    678 ;
                                   041C    679         NEXT_TEST_CASE  SFLKP10
```

```
041C  ;
041C  ;++
041C  ; ************************************************************
041C  ; *
041C  ; *  TEST CASE NAME:                 SFLKP10
041C  ; *
041C  ; *  SYSTEM SERVICE:                 LCKPAG
041C  ; *
041C  ; *  ARGUMENT UNDER TEST:            INADR_LKP10
041C  ; *
041C  ; *  INPUT CONDITIONS:
041C  ; *     LOCK PAGE INTO MEMORY WITHOUT PROPER PRIVILEGE.
041C  ; *
041C  ; *  EXPECTED RESULTS:
041C  ; *     1) SYSTEM STATUS CODE:  NOPRIV
041C  ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
041C  ; *
041C  ; ************************************************************
041C  ;--
041C  ;
041C          PRIV    REM,PSWAPM              ; REMOVE PRIV REQUIRED TO LOCK PAGES
043C  ;
043C          NEXT_TEST_CASE  SFLKP11
```

```
0448   703 ;
0448   704 ;++
0448   705 ; ***********************************************************
0448   706 ; *
0448   707 ; *  TEST CASE NAME:                SFLKP11
0448   708 ; *
0448   709 ; *  SYSTEM SERVICE:                LCKPAG
0448   710 ; *
0448   711 ; *  ARGUMENT UNDER TEST:           INADR_LKP11
0448   712 ; *
0448   713 ; *  INPUT CONDITIONS:
0448   714 ; *     LOCK A PAGE ALREADY OWNED BY EXEC MODE.
0448   715 ; *
0448   716 ; *  EXPECTED RESULTS:
0448   717 ; *     1) SYSTEM STATUS CODE:  ACCVIO
0448   718 ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0448   719 ; *
0448   720 ; ***********************************************************
0448   721 ;--
0448   722 ;
0448   723         PRIV    ADD,PSWAPM                ; GET BACK PRIVILEGE REMOVED BY SFLKP10
0468   724         MODE    TO,10$,EXEC,NOREGS        ; GET INTO EXEC MODE FOR EXPREG
0485   725         $EXPREG_S PAGCNT=#1, RETADR=INADR_LKP11
0498   726                                           ; GET A 1-PAGE REGION OWNED BY EXEC MODE
0498   727         MODE    FROM,10$                  ; BACK TO USER MODE
0499   728 ;
0499   729         NEXT_TEST_CASE  SFLKP12
```

```
04A5   ;
04A5   ;++
04A5   ; ******************************************************
04A5   ; *
04A5   ; *  TEST CASE NAME:                  SFLKP12
04A5   ; *
04A5   ; *  SYSTEM SERVICE:                  LCKPAG
04A5   ; *
04A5   ; *  ARGUMENT UNDER TEST:             INADR_LKP12
04A5   ; *
04A5   ; *  INPUT CONDITIONS:
04A5   ; *     INPUT ADDRESS FIELD AT LOCATION 0.
04A5   ; *
04A5   ; *  EXPECTED RESULTS:
04A5   ; *     1) SYSTEM STATUS CODE:  ACCVIO
04A5   ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
04A5   ; *
04A5   ; ******************************************************
04A5   ;--
04A5   ;
04A5          MODE     TO,20$,EXEC,NOREGS          ; INTO EXEC MODE FOR CNTREG
04C2          $CNTREG_S PAGCNT=#1                  ; GIVE BACK PAGE ACQUIRED BY SFLKP11
04D1          MODE     FROM,20$                    ; BACK TO USER MODE
04D2   ;
04D2          NEXT_TEST_CASE  SFLKP13
```

```
04DE     ;
04DE     ;++
04DE     ; *****************************************************
04DE     ; *
04DE     ; *  TEST CASE NAME:             SFLKP13
04DE     ; *
04DE     ; *  SYSTEM SERVICE:             LCKPAG
04DE     ; *
04DE     ; *  ARGUMENT UNDER TEST:        INADR_LKP13
04DE     ; *
04DE     ; *  INPUT CONDITIONS:
04DE     ; *     INPUT ADDRESS FIELD IN NON-ACCESSIBLE PSECT.
04DE     ; *
04DE     ; *  EXPECTED RESULTS:
04DE     ; *     1) SYSTEM STATUS CODE:  ACCVIO
04DE     ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
04DE     ; *
04DE     ; *****************************************************
04DE     ;--
04DE     ;
04DE     ;
04DE            NEXT_TEST_CASE  SFLKP14
```

```
04EA   ;
04EA   ;++
04EA   ; ****************************************************
04EA   ; *
04EA   ; *  TEST CASE NAME:           SFLKP14
04EA   ; *
04EA   ; *  SYSTEM SERVICE:           LCKPAG
04EA   ; *
04EA   ; *  ARGUMENT UNDER TEST:      INADR_LKP14
04EA   ; *
04EA   ; *  INPUT CONDITIONS:
04EA   ; *     SECOND LONGWORD OF INPUT ADDRESS FIELD BEGINS IN
04EA   ; *       ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
04EA   ; *
04EA   ; *  EXPECTED RESULTS:
04EA   ; *     1) SYSTEM STATUS CODE:  ACCVIO
04EA   ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
04EA   ; *
04EA   ; ****************************************************
04EA   ;--
04EA   ;
04EA   ;
04EA          NEXT_TEST_CASE  SFLKP20
```

```
04F6   ;
04F6   ;++
04F6   ; *******************************************************
04F6   ; *
04F6   ; *  TEST CASE NAME:             SFLKP20
04F6   ; *
04F6   ; *  SYSTEM SERVICE:             LCKPAG
04F6   ; *
04F6   ; *  ARGUMENT UNDER TEST:        RETADR_LKP20
04F6   ; *
04F6   ; *  INPUT CONDITIONS:
04F6   ; *     RETURN ADDRESS FIELD AT LOCATION 1.
04F6   ; *
04F6   ; *  EXPECTED RESULTS:
04F6   ; *     1) SYSTEM STATUS CODE:  ACCVIO
04F6   ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
04F6   ; *
04F6   ; *******************************************************
04F6   ;--
04F6   ;
04F6   ;
04F6          NEXT_TEST_CASE  SFLKP21
```

```
0502     ;
0502     ;++
0502     ; ****************************************************************
0502     ; *
0502     ; *  TEST CASE NAME:              SFLKP21
0502     ; *
0502     ; *  SYSTEM SERVICE:              LCKPAG
0502     ; *
0502     ; *  ARGUMENT UNDER TEST:         RETADR_LKP21
0502     ; *
0502     ; *  INPUT CONDITIONS:
0502     ; *     RETURN ADDRESS FIELD IN READ-ONLY PSECT.
0502     ; *
0502     ; *  EXPECTED RESULTS:
0502     ; *     1) SYSTEM STATUS CODE:   ACCVIO
0502     ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0502     ; *
0502     ; ****************************************************************
0502     ;--
0502     ;
0502     ;
0502            NEXT_TEST_CASE  SFLKP22
```

```
          050E   844 ;
          050E   845 ;++
          050E   846 ; *******************************************************
          050E   847 ; *
          050E   848 ; *  TEST CASE NAME:           SFLKP22
          050E   849 ; *
          050E   850 ; *  SYSTEM SERVICE:           LCKPAG
          050E   851 ; *
          050E   852 ; *  ARGUMENT UNDER TEST:      RETADR_LKP22
          050E   853 ; *
          050E   854 ; *  INPUT CONDITIONS:
          050E   855 ; *     SECOND LONGWORD OF RETURN ADDRESS FIELD BEGINS IN
          050E   856 ; *        ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
          050E   857 ; *
          050E   858 ; *  EXPECTED RESULTS:
          050E   859 ; *     1) SYSTEM STATUS CODE:  ACCVIO
          050E   860 ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
          050E   861 ; *
          050E   862 ; *******************************************************
          050E   863 ;--
          050E   864 ;
          050E   865 ;
          050E   866         TCEND
```

```
                                        050F     867 ;
                                        050F     868         TC_GROUP        ULP,1,TS4
                                        0536     869 ;
                                        0536     870         NEXT_TEST_CASE  SFULP10
```

```
0536     ;
0536     ;++
0536     ; ********************************************************
0536     ; *
0536     ; *  TEST CASE NAME:               SFULP10
0536     ; *
0536     ; *  SYSTEM SERVICE:               ULKPAG
0536     ; *
0536     ; *  ARGUMENT UNDER TEST:          INADR_ULP10
0536     ; *
0536     ; *  INPUT CONDITIONS:
0536     ; *      FIRST LONGWORD OF INPUT ADDRESS ARRAY BEGINS IN
0536     ; *        ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
0536     ; *
0536     ; *  EXPECTED RESULTS:
0536     ; *      1) SYSTEM STATUS CODE:  ACCVIO
0536     ; *      2) REGISTERS R2 THROUGH FP UNCHANGED
0536     ; *
0536     ; ********************************************************
0536     ;--
0536     ;
0536     ;
0536              NEXT_TEST_CASE  SFULP11
```

```
0542     ;
0542     ;++
0542     ; **********************************************************
0542     ; *
0542     ; *  TEST CASE NAME:              SFULP11
0542     ; *
0542     ; *  SYSTEM SERVICE:              ULKPAG
0542     ; *
0542     ; *  ARGUMENT UNDER TEST:         INADR_ULP11
0542     ; *
0542     ; *  INPUT CONDITIONS:
0542     ; *     UNLOCK A PAGE ALREADY OWNED BY EXEC MODE.
0542     ; *
0542     ; *  EXPECTED RESULTS:
0542     ; *     1) SYSTEM STATUS CODE:  ACCVIO
0542     ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
0542     ; *
0542     ; **********************************************************
0542     ;--
0542     ;
0542              MODE    TO,10$,EXEC,NOREGS        ; GET INTO EXEC MODE FOR EXPREG
055F              $EXPREG_S PAGCNT=#1, RETADR=INADR_ULP11
0572                                                ; GET A 1-PAGE REGION OWNED BY EXEC MODE
0572              MODE    FROM,10$                  ; BACK TO USER MODE
0573     ;
0573              NEXT_TEST_CASE  SFULP12
```

```
057F   ;
057F   ;++
057F   ; *************************************************************
057F   ; *
057F   ; *  TEST CASE NAME:              SFULP12
057F   ; *
057F   ; *  SYSTEM SERVICE:              ULKPAG
057F   ; *
057F   ; *  ARGUMENT UNDER TEST:         INADR_ULP12
057F   ; *
057F   ; *  INPUT CONDITIONS:
057F   ; *     INPUT ADDRESS FIELD AT LOCATION 0.
057F   ; *
057F   ; *  EXPECTED RESULTS:
057F   ; *     1) SYSTEM STATUS CODE:  ACCVIO
057F   ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
057F   ; *
057F   ; *************************************************************
057F   ;--
057F   ;
057F             MODE    TO,20$,EXEC,NOREGS        ; INTO EXEC MODE FOR CNTREG
059C             $CNTREG_S PAGCNT=#1               ; GIVE BACK PAGE ACQUIRED BY SFULP11
05AB             MODE    FROM,20$                  ; BACK TO USER MODE
05AC   ;
05AC             NEXT_TEST_CASE  SFULP13
```

```
05B8   945 ;
05B8   946 ;++
05B8   947 ; *****************************************************
05B8   948 ; *
05B8   949 ; *  TEST CASE NAME:            SFULP13
05B8   950 ; *
05B8   951 ; *  SYSTEM SERVICE:            ULKPAG
05B8   952 ; *
05B8   953 ; *  ARGUMENT UNDER TEST:       INADR_ULP13
05B8   954 ; *
05B8   955 ; *  INPUT CONDITIONS:
05B8   956 ; *      INPUT ADDRESS FIELD IN NON-ACCESSIBLE PSECT.
05B8   957 ; *
05B8   958 ; *  EXPECTED RESULTS:
05B8   959 ; *      1) SYSTEM STATUS CODE:  ACCVIO
05B8   960 ; *      2) REGISTERS R2 THROUGH FP UNCHANGED
05B8   961 ; *
05B8   962 ; *****************************************************
05B8   963 ;--
05B8   964 ;
05B8   965 ;
05B8   966         NEXT_TEST_CASE  SFULP14
```

```
05C4   967 ;
05C4   968 ;++
05C4   969 ; ***********************************************************
05C4   970 ; *
05C4   971 ; *  TEST CASE NAME:            SFULP14
05C4   972 ; *
05C4   973 ; *  SYSTEM SERVICE:            ULKPAG
05C4   974 ; *
05C4   975 ; *  ARGUMENT UNDER TEST:       INADR_ULP14
05C4   976 ; *
05C4   977 ; *  INPUT CONDITIONS:
05C4   978 ; *     SECOND LONGWORD OF INPUT ADDRESS FIELD BEGINS IN
05C4   979 ; *       ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
05C4   980 ; *
05C4   981 ; *  EXPECTED RESULTS:
05C4   982 ; *     1) SYSTEM STATUS CODE:  ACCVIO
05C4   983 ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
05C4   984 ; *
05C4   985 ; ***********************************************************
05C4   986 ;--
05C4   987 ;
05C4   988 ;
05C4   989        NEXT_TEST_CASE  SFULP20
```

```
05D0     ;
05D0     ;++
05D0     ; ******************************************************
05D0     ; *
05D0     ; *  TEST CASE NAME:             SFULP20
05D0     ; *
05D0     ; *  SYSTEM SERVICE:             ULKPAG
05D0     ; *
05D0     ; *  ARGUMENT UNDER TEST:        RETADR_ULP20
05D0     ; *
05D0     ; *  INPUT CONDITIONS:
05D0     ; *     RETURN ADDRESS FIELD AT LOCATION 1.
05D0     ; *
05D0     ; *  EXPECTED RESULTS:
05D0     ; *     1) SYSTEM STATUS CODE:  ACCVIO
05D0     ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
05D0     ; *
05D0     ; ******************************************************
05D0     ;--
05D0     ;
05D0     ;
05D0             NEXT_TEST_CASE  SFULP21
```

```
                05DC   1012 ;
                05DC   1013 ;++
                05DC   1014 ; ***********************************************************
                05DC   1015 ; *
                05DC   1016 ; *  TEST CASE NAME:              SFULP21
                05DC   1017 ; *
                05DC   1018 ; *  SYSTEM SERVICE:              ULKPAG
                05DC   1019 ; *
                05DC   1020 ; *  ARGUMENT UNDER TEST:         RETADR_ULP21
                05DC   1021 ; *
                05DC   1022 ; *  INPUT CONDITIONS:
                05DC   1023 ; *     RETURN ADDRESS FIELD IN READ-ONLY PSECT.
                05DC   1024 ; *
                05DC   1025 ; *  EXPECTED RESULTS:
                05DC   1026 ; *     1) SYSTEM STATUS CODE:  ACCVIO
                05DC   1027 ; *     2) REGISTERS R2 THROUGH FP UNCHANGED
                05DC   1028 ; *
                05DC   1029 ; ***********************************************************
                05DC   1030 ;--
                05DC   1031 ;
                05DC   1032 ;
                05DC   1033         NEXT_TEST_CASE  SFULP22
```

```
05E8     ;
05E8     ;++
05E8     ; ************************************************************
05E8     ; *
05E8     ; *  TEST CASE NAME:              SFULP22
05E8     ; *
05E8     ; *  SYSTEM SERVICE:              ULKPAG
05E8     ; *
05E8     ; *  ARGUMENT UNDER TEST:         RETADR_ULP22
05E8     ; *
05E8     ; *  INPUT CONDITIONS:
05E8     ; *      SECOND LONGWORD OF RETURN ADDRESS FIELD BEGINS IN
05E8     ; *        ACCESSIBLE PSECT, ENDS IN NON-ACCESSIBLE PSECT.
05E8     ; *
05E8     ; *  EXPECTED RESULTS:
05E8     ; *      1) SYSTEM STATUS CODE:  ACCVIO
05E8     ; *      2) REGISTERS R2 THROUGH FP UNCHANGED
05E8     ; *
05E8     ; ************************************************************
05E8     ;--
05E8     ;
05E8     ;
05E8             TCEND
```

```
05E9  1057 TS1:
05E9  1058          TESTSERV        LKWSET,ERR,SATS,                                -
05E9  1059                                                                          -
05E9  1060             <1,INADR_LWS,                                                -
05E9  1061                          INADR_LWS10,NOPRIV,      -  ; SFLWS10
05E9  1062                          INADR_LWS11,ACCVIO,      -  ; SFLWS11
05E9  1063                          INADR_LWS12,ACCVIO,      -  ; SFLWS12
05E9  1064                          INADR_LWS13,ACCVIO,      -  ; SFLWS13
05E9  1065                          INADR_LWS14,ACCVIO,      -  ; SFLWS14
05E9  1066                                                 >,                     -
05E9  1067                                                                          -
05E9  1068             <1,RETADR_LWS,                                               -
05E9  1069                          RETADR_LWS20,ACCVIO,     -  ; SFLWS20
05E9  1070                          RETADR_LWS21,ACCVIO,     -  ; SFLWS21
05E9  1071                          RETADR_LWS22,ACCVIO,     -  ; SFLWS22
05E9  1072                                                 >,                     -
05E9  1073                                                                          -
05E9  1074             <1,ACMODE_LWS,                                               -
05E9  1075                                                 >,                     -
05E9  1076
07FB  1077          TS_CLEANUP                  ; CLEAN UP & RETURN TO TEST_SERV_EXEC
```

```
081B  TS2:
081B          TESTSERV        ULWSET,ERR,SATS,                                    -
081B                                                                              -
081B               <1,INADR_UWS,                                                  -
081B                          INADR_UWS10,NOPRIV,       -  ; SFUWS10
081B                          INADR_UWS11,ACCVIO,       -  ; SFUWS11
081B                          INADR_UWS12,ACCVIO,       -  ; SFUWS12
081B                          INADR_UWS13,ACCVIO,       -  ; SFUWS13
081B                          INADR_UWS14,ACCVIO,       -  ; SFUWS14
081B                                                  >,                          -
081B                                                                              -
081B               <1,RETADR_UWS,                                                 -
081B                          RETADR_UWS20,ACCVIO,      -  ; SFUWS20
081B                          RETADR_UWS21,ACCVIO,      -  ; SFUWS21
081B                          RETADR_UWS22,ACCVIO,      -  ; SFUWS22
081B                                                  >,                          -
081B                                                                              -
081B               <1,ACMODE_UWS,                                                 -
081B                                                  >,                          -
081B
0A2D          TS_CLEANUP                 ; CLEAN UP & RETURN TO TEST_SERV_EXEC
```

```
0A4D      TS3:
0A4D              TESTSERV        LCKPAG,ERR,SATS,                                -
0A4D                                                                              -
0A4D                 <1,INADR_LKP,                                                -
0A4D                              INADR_LKP10,NOPRIV,      -  ; SFLKP10
0A4D                              INADR_LKP11,ACCVIO,      -  ; SFLKP11
0A4D                              INADR_LKP12,ACCVIO,      -  ; SFLKP12
0A4D                              INADR_LKP13,ACCVIO,      -  ; SFLKP13
0A4D                              INADR_LKP14,ACCVIO,      -  ; SFLKP14
0A4D                                                      >,                      -
0A4D                                                                              -
0A4D                 <1,RETADR_LKP,                                               -
0A4D                              RETADR_LKP20,ACCVIO,     -  ; SFLKP20
0A4D                              RETADR_LKP21,ACCVIO,     -  ; SFLKP21
0A4D                              RETADR_LKP22,ACCVIO,     -  ; SFLKP22
0A4D                                                      >,                      -
0A4D
0BD5              TS_CLEANUP                  ; CLEAN UP & RETURN TO TEST_SERV_EXEC
```

```
0BF5  1117 TS4:
0BF5  1118         TESTSERV        ULKPAG,ERR,SATS,                                      -
0BF5  1119                                                                                -
0BF5  1120              <1,INADR_ULP,                                                   -
0BF5  1121                              INADR_ULP10,ACCVIO,       -  ; SFULP10
0BF5  1122                              INADR_ULP11,ACCVIO,       -  ; SFULP11
0BF5  1123                              INADR_ULP12,ACCVIO,       -  ; SFULP12
0BF5  1124                              INADR_ULP13,ACCVIO,       -  ; SFULP13
0BF5  1125                              INADR_ULP14,ACCVIO,       -  ; SFULP14
0BF5  1126                                                     >,                       -
0BF5  1127                                                                                -
0BF5  1128              <1,RETADR_ULP,                                                  -
0BF5  1129                              RETADR_ULP20,ACCVIO,      -  ; SFULP20
0BF5  1130                              RETADR_ULP21,ACCVIO,      -  ; SFULP21
0BF5  1131                              RETADR_ULP22,ACCVIO,      -  ; SFULP22
0BF5  1132                                                     >,                       -
0BF5  1133
0D7D  1134         TS_CLEANUP                  ; CLEAN UP & RETURN TO TEST_SERV_EXEC
```

```
                                   0D9D  1135          .SBTTL  EXECUTE & CLEANUP
                                   0D9D  1136  EXECUTE:
                                   0D9D  1137          TEST_SERV_EXEC                    ; EXECUTE ALL T. CASES IN ALL GROUPS
                                   0DC5  1138  CLEANUP:
                      0138     30  0DC5  1139          BSBW    MOD_MSG_PRINT             ; PRINT TEST MODULE END MSG
  00000044'EF   01   1C   01   F0  0DC8  1140          INSV    #1,#STS$V_INHIB_MSG,#1,MOD_MSG_CODE
                                   0DD1  1141                                            ; INHIBIT PRINTING
                                   0DD1  1142          $EXIT_S MOD_MSG_CODE              ; EXIT TO OP SYS WITH MSG CODE
```

```
0DDE                    .SBTTL  TC_CONTROL
0DDE            ;++
0DDE            ; FUNCTIONAL DESCRIPTION:
0DDE            ;
0DDE            ;                       THE TC_CONTROL SUBROUTINE IS CALLED BY THE TEST_SERV_EXEC
0DDE            ; MACRO TO EXECUTE A GROUP OF TEST CASES. A GROUP IS DEFINED BY A TC_GROUP
0DDE            ; MACRO. FOR EACH TC_GROUP MACRO, THERE IS A CORRESPONDING TESTSERV MACRO.
0DDE            ; TESTSERV CONTAINS CODE TO EXECUTE SYSTEM SERVICES AND CHECK THE RETURNED
0DDE            ; STATUS CODE VALUES. TESTSERV ARGUMENTS ARE CODED TO SPECIFY ALL THE SYSTEM
0DDE            ; SERVICE ARGUMENT VALUES AND THE EXPECTED STATUS CODE FOR EACH TEST CASE
0DDE            ; DEFINED BY A NEXT_TEST_CASE MACRO WITHIN THE GROUP. TC_CONTROL USES A
0DDE            ; CO-ROUTINE INTERFACE TO ENTER THE CODE OF THE APPROPRIATE TESTSERV MACRO
0DDE            ; IN VARIOUS PLACES. THE FIRST ENTRY OCCURS ONCE PER GROUP TO ALLOW TESTSERV
0DDE            ; TO DO SOME INITIALIZATION. THEN TWO ENTRIES ARE MADE FOR EACH TEST CASE IN
0DDE            ; THE GROUP. THE FIRST ALLOWS TESTSERV TO ISSUE THE SUBJECT SYSTEM SERVICE.
0DDE            ; THE SECOND ENTRY FOR THE TEST CASE CAUSES TESTSERV TO CHECK THE RETURNED
0DDE            ; STATUS CODE, PRINTING A FAILURE MESSAGE IF IT IS NOT THE EXPECTED CODE.
0DDE            ; IF THERE ARE NO MORE TEST CASES IN THE CURRENT GROUP, TESTSERV (NOT TC_CONTROL)
0DDE            ; RETURNS DIRECTLY TO TEST_SERV_EXEC (RSB ACTUALLY ISSUED IN TS_CLEANUP MACRO)
0DDE            ; FROM THIS SECOND ENTRY; OTHERWISE, CONTROL RETURNS TO TC_CONTROL WHICH
0DDE            ; IN TURN ENTERS TESTSERV AGAIN FOR THE NEXT TEST CASE. THE FAILURE OF A
0DDE            ; TEST CASE DOES NOT CAUSE TERMINATION OF THE TEST MODULE.
0DDE            ;
0DDE            ; CALLING SEQUENCE:
0DDE            ;
0DDE            ;       BSBW TC_CONTROL (ISSUED WITHIN THE TEST_SERV_EXEC MACRO)
0DDE            ;                       (RSB IS ISSUED WITHIN THE TS_CLEANUP MACRO)
0DDE            ;
0DDE            ; INPUT PARAMETERS:
0DDE            ;
0DDE            ;       NONE
0DDE            ;
0DDE            ; IMPLICIT INPUTS:
0DDE            ;
0DDE            ;       ARGUMENTS SPECIFIED ON EACH TESTSERV MACRO MAY BE VIEWED AS
0DDE            ;       INPUTS, SINCE TC_CONTROL AND TESTSERV ACT AS CO-ROUTINES.
0DDE            ;
0DDE            ; OUTPUT PARAMETERS:
0DDE            ;
0DDE            ;       SEVERITY CODE FIELD OF MOD_MSG_CODE (BITS 0,1,2) IS SET TO ERROR
0DDE            ;       IF ANY TEST CASE IN THE CURRENT GROUP FAILS; OTHERWISE IT REMAINS
0DDE            ;       SET TO SUCCESSFUL.
0DDE            ;
0DDE            ; IMPLICIT OUTPUTS:
0DDE            ;
0DDE            ;       %UETP-I-TEXT,   ERROR MESSAGES ARE WRITTEN TO SYS$OUTPUT BY
0DDE            ;                       THE TESTSERV MACRO (CO-ROUTINE WITH TC_CONTROL)
0DDE            ;
0DDE            ; COMPLETION CODES:
0DDE            ;
0DDE            ;       NONE
0DDE            ;
0DDE            ; SIDE EFFECTS:
0DDE            ;
0DDE            ;       NONE
0DDE            ;
0DDE            ;--
```

```
                                 0DDE
                                 0DDE
                                 0DDE
                                 0DDE  TC_CONTROL:
             00000064'EF    DD   0DDE          PUSHL   TS_EP                     ; PUSH TESTSERV ENTRY POINT
                      9E    16   0DE4          JSB     @(SP)+                    ; ENTER TESTSERV INITIALIZATION
                                 0DE6  10$:                                      ; PROCESS NEXT TEST CASE
         00000056'EF   20   90   0DE6          MOVB    #^A/ /,$$TSTN$$+2         ; MAKE SURE T.C. NAME HAS A BLANK
                    002F    30   0DED          BSBW    REG_SAVE                  ; SAVE REGISTERS
             00000004'FF    16   0DF0          JSB     @CURRENT_TC               ; JUMP TO CURRENT TEST CASE
                    0037    30   0DF6          BSBW    REG_REST                  ; RESTORE REGS FOR TESTSERV
                      9E    16   0DF9          JSB     @(SP)+                    ; LET TESTSERV ISSUE SYSTEM SERVICE
                    0042    30   0DFB          BSBW    REG_COMP                  ; COMPARE REGS TO SEE IF ...
                                 0DFE                                            ; ... SYSTEM SERVICE CHANGED ANY
                      9E    16   0DFE          JSB     @(SP)+                    ; LET TESTSERV CHEK S.S. STATUS CODE
         00000056'EF   2A   91   0E00          CMPB    #^A/*/,$$TSTN$$+2         ; HAS TESTSERV INDICATED FAILURE ?
                      DD    12   0E07          BNEQU   10$                       ; NO -- PROCESS NEXT TEST CASE
   00000060'EF   00000088'EF    DE   0E09          MOVAL   TEST_MOD_FAIL,TMD_ADDR    ; YES -- INDICATE FAILED IN END MSG
 00000044'EF   03    00    02   F0   0E14          INSV    #ERROR,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR ERROR
                      C7    11   0E1D          BRB     10$                       ; LOOP BAK TO PROCESS NEXT TEST CASE
                                 0E1F  ;
                                 0E1F  ;       TC_CONTROL RETURNS TO TEST_SERV_EXEC VIA TESTSERV (IN TS_CLEANUP MACRO)
                                 0E1F  ;
```

```
                              0E1F         .SBTTL  SUBROUTINES
                              0E1F  REG_SAVE:
                              0E1F  ;
                              0E1F  ;      ****************************************************************
                              0E1F  ;      *                                                              *
                              0E1F  ;      *   SAVES R0 THRU SP IN REG_SAVE_AREA                          *
                              0E1F  ;      *                                                              *
                              0E1F  ;      ****************************************************************
                              0E1F  ;
                  7FFF 8F  BB 0E1F             PUSHR   #R0_THRU_SP              ; SAVE ALL REGS ON STACK
     00000008'EF  6E   3C  28 0E23             MOVC3   #60,(SP),REG_SAVE_AREA   ; SAVE REGS (BEFORE S.S.)
                  7FFF 8F  BA 0E2B             POPR    #R0_THRU_SP              ; CLEAN UP STACK
                           05 0E2F             RSB                              ; .... AND RETURN
                              0E30  ;
                              0E30  ;
                              0E30  ;
                              0E30  ;
                              0E30  REG_REST:
                              0E30  ;
                              0E30  ;
                              0E30  ;      ****************************************************************
                              0E30  ;      *                                                              *
                              0E30  ;      *   RESTORES R0 THRU SP FROM REG_SAVE_AREA                     *
                              0E30  ;      *                                                              *
                              0E30  ;      ****************************************************************
                              0E30  ;
                  5E   3C  C2 0E30             SUBL2   #60,SP                   ; MOVE SP TO MAKE ROOM FOR REGS
 6E   00000008'EF      3C  28 0E33             MOVC3   #60,REG_SAVE_AREA,(SP)   ; MOVE REGS ONTO STACK FOR POP
                  7FFF 8F  BA 0E3B             POPR    #R0_THRU_SP              ; RESTORE ALL REGS FOR TESTSERV
                           05 0E3F             RSB                              ; ... AND RETURN
```

```
                                0E40  1256 REG_COMP:
                                0E40  1257 ;
                                0E40  1258 ;   *****************************************************************
                                0E40  1259 ;   *                                                               *
                                0E40  1260 ;   *  1) PUSHES ALL REGS ONTO STACK                                *
                                0E40  1261 ;   *  2) COMPARES REGISTER IMAGES FROM STACK WITH CORRESPONDING    *
                                0E40  1262 ;   *       IMAGES FROM REG_SAVE_AREA FOR ALL REGISTERS SPECIFIED   *
                                0E40  1263 ;   *       IN REG_COMP_MASK.                                       *
                                0E40  1264 ;   *  3) FOR EACH UNEQUAL COMPARE, AN ERROR MESSAGE IS PRINTED     *
                                0E40  1265 ;   *       (USING $FAO AND $OUTPUT SYSTEM SERVICES).               *
                                0E40  1266 ;   *  4) POPS ALL REGS OFF OF STACK                                *
                                0E40  1267 ;   *                                                               *
                                0E40  1268 ;   *****************************************************************
                                0E40  1269 ;
              7FFF 8F     BB    0E40  1270          PUSHR   #R0_THRU_SP               ; SAVE ALL REGISTERS ON STACK
        56  00000008'EF   DE    0E44  1271          MOVAL   REG_SAVE_AREA,R6          ; POINT R6 TO BEG OF ...
                                0E4B  1272                                            ; ... REGS (BEFORE S.S.)
              54    5E    D0    0E4B  1273          MOVL    SP,R4                     ; POINT R4 TO BEG OF
                                0E4E  1274                                            ; ... REGS (AFTER S.S.)
          53   FF 8F      98    0E4E  1275          CVTBL   #-1,R3                    ; INITIALIZE REG_COMP_MASK INDEX
                                0E52  1276 REG_COMP_NEXT:
                    53    D6    0E52  1277          INCL    R3                        ; POINT TO NEXT BIT IN MASK
              53    0F    91    0E54  1278          CMPB    #15,R3                    ; END OF THE MASK ?
                    03    1A    0E57  1279          BGTRU   REG_COMP_CONT             ; NO -- CONTINUE
                  009F    31    0E59  1280          BRW     REG_COMP_RSB              ; YES -- GO TO COMMON RETURN
                                0E5C  1281 REG_COMP_CONT:
              84    86    D1    0E5C  1282          CMPL    (R6)+,(R4)+               ; REG BEFORE = REG AFTER ?
                    F1    13    0E5F  1283          BEQLU   REG_COMP_NEXT             ; YES -- LOOK FOR NEXT REG
      E9 00000000'EF      53    E1    0E61  1284          BBC     R3,REG_COMP_MASK,REG_COMP_NEXT
                                0E69  1285                                            ; NO -- GET NEXT IF BIT NOT SET
       00000048'EF   53   D0    0E69  1286          MOVL    R3,CLOB_REG_NO            ; NO -- GIVE REG NUMBER TO FAO
    0000004C'EF    FC A6   D0    0E70  1287          MOVL    -4(R6),REG_BEFORE_SS      ; GIVE "BEFORE" CONTENTS TO FAO
    00000050'EF    FC A4   D0    0E78  1288          MOVL    -4(R4),REG_AFTER_SS       ; GIVE "AFTER" CONTENTS TO FAO
       00000056'EF   2A   90    0E80  1289          MOVB    #^A/*/,$$TSTN$$+2         ; GIVE FAILURE INDIC'N IN ERROR MSG
                                0E87  1290 ;
                                0E87  1291          $FAO_S  ERR_MSG_FAOCTL,OUTL,OUTD,$$SNAD$$,  -
                                0E87  1292                  $$ASEQ$$,$$PSEQ$$,CLOB_REG_NO,REG_BEFORE_SS,REG_AFTER_SS
                                0EBA  1293 ;
      F253 CF    F21D CF   B0    0EBA  1294          MOVW    OUTL,OUTD                 ; ACTUAL OUTPUT LEN IN STRING DESC'R
                                0EC1  1295          PUTMSG  <#UETP$_TEXT,#1,#OUTD>    ; PRINT THE MSG
      F237 CF    0084 8F   B0    0ED6  1296          MOVW    #OUTE-OUTB,OUTD           ; GET MAX LEN BACK INTO DESCRIPTOR
       00000056'EF   20   90    0EDD  1297          MOVB    #^A/ /,$$TSTN$$+2         ; REMOVE FAIL INDIC'N FOR NEXT MSG
 00000060'EF   00000088'EF   DE    0EE4  1298          MOVAL   TEST_MOD_FAIL,TMD_ADDR    ; INDICATE FAILED IN END MSG
 00000044'EF   03   00   02   F0    0EEF  1299          INSV    #ERROR,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR ERROR
                  FF57    31    0EF8  1300          BRW     REG_COMP_NEXT             ; GO LOOK FOR NEXT REG TO COMPARE
                                0EFB  1301 REG_COMP_RSB:
              7FFF 8F     BA    0EFB  1302          POPR    #R0_THRU_SP               ; CLEAN UP STACK
                          05    0EFF  1303          RSB                               ; RETURN TO CALLER
```

```
0F00  1305 MOD_MSG_PRINT:
0F00  1306 ;
0F00  1307 ;  **********************************************************************
0F00  1308 ;  *                                                                    *
0F00  1309 ;  *  PRINTS THE TEST MODULE BEGUN/SUCCESSFUL/FAILED MESSAGES           *
0F00  1310 ;  *        (USING THE PUTMSG MACRO).                                   *
0F00  1311 ;  *                                                                    *
```

```
                     0F00  1313 ;   ********************************************************************
                     0F00  1314 ;
                     0F00  1315          PUTMSG  <MOD_MSG_CODE,#2,TMN_ADDR,TMD_ADDR> ; PRINT MSG
                 05  0F1B  1316          RSB                                 ; ... AND RETURN TO CALLER
                     0F1C  1317 ;
                     0F1C  1318 CHMRTN:
                     0F1C  1319 ;   ***********************************************************
                     0F1C  1320 ;   *
                     0F1C  1321 ;   *     CHANGE MODE ROUTINE. THIS ROUTINE GETS CONTROL WHENEVER
                     0F1C  1322 ;   *     A CMKRNL, CMEXEC, OR CMSUP SYSTEM SERVICE IS ISSUED
                     0F1C  1323 ;   *     BY THE MODE MACRO ('TO' OPTION).  IT MERELY DOES
                     0F1C  1324 ;   *     A JUMP INDIRECT ON A FIELD SET UP BY MODE. IT HAS
                     0F1C  1325 ;   *     THE EFFECT OF RETURNING TO THE END OF THE MODE
                     0F1C  1326 ;   *     MACRO EXPANSION.
                     0F1C  1327 ;   *
                     0F1C  1328 ;   ******************************************************************
                     0F1C  1329 ;
               0000  0F1C  1330          .WORD   0                           ; ENTRY MASK
     00000079'FF  17  0F1E  1331          JMP     @CHM_CONT                   ; RETURN TO MODE MACRO IN NEW MODE
                     0F24  1332 ;
                     0F24  1333 ;   *     RET INSTR WILL BE ISSUED IN EXPANSION OF 'MODE FROM, ....' MACRO
                     0F24  1334 ;
                     0F24  1335          .END    SATSSF14
```

```
$$$CHARS                        = 00000048              MEXIT                           = 00000000
$$$FIRSTTC$$$                   = 00000000              MOD_MSG_CODE                      00000044 R       03
$$$STRINGS                      = 00000000              MOD_MSG_PRINT                     00000F00 R       06
$$ACT$$                           000000F3 R       06   NARGS                           = 00000014
$$ARG$$                           000000FB R       06   NOACCESS                          00000000 R       05
$$ASEQ$$                          000000EB R       06   NSSARGS                         = 00000002
$$CALL$$                          000000DF R       06   ONES                              000000B5 R       02
$$DISP$$                          000001E6 R       06   OUTB                              0000011C R       06
$$ERR$$                           000001A0 R       06   OUTD                              00000114 R       06
$$EXP$$                           000000F7 R       06   OUTE                              000001A0 R       06
$$INIT$$                          000000E3 R       06   OUTL                              000000DB R       06
$$MAXP$$                        = 00000005              PHD$Q_PRIVMSK                   = 00000000
$$PSEQ$$                          000000EF R       06   PRIVMASK                          00000071 R       03
$$SNAD$$                          000000E7 R       06   PRIV_ARGS                       = 00000002
$$T1                            = 00000004              PROT                              000000B1 R       02
$$T2                            = 00000009              PRT$C_NA                          ********      X  02
$$TSTN$$                          00000054 R       03   PRV$V_PSWAPM                    = 0000000C
ACMODE_LWS                        000000D5 R       02   PRVPRT                            00000070 R       03
ACMODE_UWS                        000000D5 R       02   PSL$C_USER                      = 00000003
CHMRTN                            00000F1C R       06   R0_THRU_SP                      = 00007FFF
CHM_CONT                          00000079 R       03   REGS                              0000007D R       03
CLEANUP                           00000DC5 R       06   REG_AFTER_SS                      00000050 R       03
CLOB_REG_NO                       00000048 R       03   REG_BEFORE_SS                     0000004C R       03
CTL$GL_PHD                        ********      X  06   REG_COMP                          00000E40 R       06
CURRENT_TC                        00000004 R       03   REG_COMP_CONT                     00000E5C R       06
EMPTY                             00000000 R       04   REG_COMP_MASK                     00000000 R       02
ERROR                           = 00000002              REG_COMP_NEXT                     00000E52 R       06
ERR_MSG_FAOCTL                    00000002 R       02   REG_COMP_RSB                      00000EFB R       06
EXECUTE                           00000D9D R       06   REG_REST                          00000E30 R       06
GRP_TOTAL                       = 00000004              REG_SAVE                          00000E1F R       06
INADR                             000000A9 R       02   REG_SAVE_AREA                     00000008 R       03
INADR_LKP                         000000C1 R       03   RETADR                            00000068 R       03
INADR_LKP10                       000000C5 R       02   RETADR_LKP                        000000D1 R       03
INADR_LKP11                       000000C9 R       03   RETADR_LKP20                    = 00000001
INADR_LKP12                     = 00000000              RETADR_LKP21                      000000CD R       02
INADR_LKP13                       00000018 R       05   RETADR_LKP22                    = 000001F9 R       04
INADR_LKP14                     = 000001F9 R       04   RETADR_LWS                        000000A1 R       03
INADR_LWS                         00000091 R       03   RETADR_LWS20                    = 00000001
INADR_LWS10                       000000BD R       02   RETADR_LWS21                      000000CD R       02
INADR_LWS11                       00000099 R       03   RETADR_LWS22                    = 000001F9 R       04
INADR_LWS12                     = 00000000              RETADR_ULP                        000000E9 R       03
INADR_LWS13                       00000008 R       05   RETADR_ULP20                    = 00000001
INADR_LWS14                     = 000001F9 R       04   RETADR_ULP21                      000000CD R       02
INADR_ULP                         000000D9 R       03   RETADR_ULP22                    = 000001F9 R       04
INADR_ULP10                     = 000001FF R       04   RETADR_UWS                        000000B9 R       03
INADR_ULP11                       000000E1 R       03   RETADR_UWS20                    = 00000001
INADR_ULP12                     = 00000000              RETADR_UWS21                      000000CD R       02
INADR_ULP13                       00000020 R       05   RETADR_UWS22                    = 000001F9 R       04
INADR_ULP14                     = 000001F9 R       04   SATSSF14                          00000000 R       06
INADR_UWS                         000000A9 R       03   SEVERE                          = 00000004
INADR_UWS10                       000000BD R       02   SHR$K_SHRDEF                    = 00000001
INADR_UWS11                       000000B1 R       03   SHR$_TEXT                       = 00001130
INADR_UWS12                     = 00000000              SS$_ACCVIO                        ********      X  06
INADR_UWS13                       00000010 R       05   SS$_NOPRIV                        ********      X  06
INADR_UWS14                     = 000001F9 R       04   STS$V_INHIB_MSG                 = 0000001C
INFO                            = 00000003              SUCCESS                         = 00000001
LIB$SIGNAL                        ********      X  06   SYS$CMEXEC                        ********     GX  06
```

```
SYS$CMKRNL                       ********  GX    06
SYS$CNTREG                       ********  GX    06
SYS$EXIT                         ********  GX    06
SYS$EXPREG                       ********  GX    06
SYS$FAO                          ********   X    06
SYS$FAOL                         ********  GX    06
SYS$HIBER                        ********  GX    06
SYS$LCKPAG                       ********  GX    06
SYS$LKWSET                       ********  GX    06
SYS$SETPRN                       ********  GX    06
SYS$SETPRT                       ********  GX    06
SYS$SETPRV                       ********  GX    06
SYS$ULKPAG                       ********  GX    06
SYS$ULWSET                       ********  GX    06
SYS$WAKE                         ********  GX    06
TC1                              00000241 R      06
TC2                              0000031B R      06
TC3                              000003F5 R      06
TC4                              0000050F R      06
TCG_NO                         = 00000004
TC_CONTROL                       00000DDE R      06
TEST_MOD_BEG                     00000077 R      02
TEST_MOD_FAIL                    00000088 R      02
TEST_MOD_NAME                    0000006E R      02
TEST_MOD_NAME_D                  0000008F R      02
TEST_MOD_SUCC                    0000007D R      02
TMD_ADDR                         00000060 R      03
TMN_ADDR                         0000005C R      03
TPID                             00000000 R      03
TS1                              000005E9 R      06
TS2                              0000081B R      06
TS3                              00000A4D R      06
TS4                              00000BF5 R      06
TS_EP                            00000064 R      03
TTNAME                           0000009F R      02
UETP$_SATSMS                   = 007480D9
UETP$_TEXT                     = 00741133
WARNING                        = 00000000

                                             +----------------+
                                             ! Psect synopsis !
                                             +----------------+

PSECT name                       Allocation         PSECT No.  Attributes
----------                       ----------         ---------  ----------

.  ABS  .                        00000000  (    0.)  00 (  0.)  NOPIC    USR    CON    ABS    LCL NOSHR NOEXE NORD   NOWRT NOVEC BYTE
$ABS$                            00000000  (    0.)  01 (  1.)  NOPIC    USR    CON    ABS    LCL NOSHR   EXE   RD     WRT NOVEC BYTE
RODATA                           000000D9  (  217.)  02 (  2.)  NOPIC    USR    CON    REL    LCL NOSHR NOEXE   RD   NOWRT NOVEC LONG
RWDATA                           000000F1  (  241.)  03 (  3.)  NOPIC    USR    CON    REL    LCL NOSHR NOEXE   RD     WRT NOVEC BYTE
SATS_ACCVIO_1                    00000200  (  512.)  04 (  4.)  NOPIC    USR    CON    REL    LCL NOSHR NOEXE   RD     WRT NOVEC PAGE
SATS_ACCVIO_2                    00000200  (  512.)  05 (  5.)  NOPIC    USR    CON    REL    LCL NOSHR NOEXE   RD     WRT NOVEC PAGE
SATSSF14                         00000F24  ( 3876.)  06 (  6.)  NOPIC    USR    CON    REL    LCL NOSHR   EXE   RD     WRT NOVEC LONG
```

```
                                             +------------------------+
                                             ! Performance indicators !
                                             +------------------------+

Phase                    Page faults    CPU Time       Elapsed Time
-----                    -----------    --------       ------------
Initialization                    30    00:00:00.09    00:00:00.52
Command processing               107    00:00:00.72    00:00:04.77
Pass 1                           427    00:00:17.43    00:00:29.99
Symbol table sort                  0    00:00:01.23    00:00:01.35
Pass 2                           259    00:00:04.57    00:00:06.07
Symbol table output               18    00:00:00.16    00:00:00.41
Psect synopsis output              3    00:00:00.03    00:00:00.03
Cross-reference output             0    00:00:00.00    00:00:00.00
Assembler run totals             846    00:00:24.23    00:00:43.14

The working set limit was 1950 pages.
93767 bytes (184 pages) of virtual memory were used to buffer the intermediate code.
There were 40 pages of symbol table space allocated to hold 670 non-local and 156 local symbols.
1335 source lines were read in Pass 1, producing 31 object records in Pass 2.
69 pages of virtual memory were used to define 53 macros.

                                            +--------------------------+
                                            ! Macro library statistics !
                                            +--------------------------+

Macro library name                           Macros defined
------------------                           --------------
_$255$DUA28:[SHRLIB]UETP.MLB;1                         19
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                          2
_$255$DUA28:[SYSLIB]STARLET.MLB;2                      26
TOTALS (all libraries)                                 47

1316 GETS were required to define 47 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:SATSSF14/OBJ=OBJ$:SATSSF14 MSRC$:SATSSF14/UPDATE=(ENH$:SATSSF14)+EXECML$/LIB+SHRLIB$:UETP/LIB
```

0420 AH-BT13A-SE
VAX/VMS V4.0

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